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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,266

06/01/2005

Yasuo Tano

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1045

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EXAMINER

LAVERT, NICOLE F

ART UNIT

PAPER NUMBER

3762

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DELIVERY MODE

06/19/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/537,266	<b>Applicant(s)</b> TANO ET AL.	
	<b>Examiner</b> NICOLE F. LAVERT	<b>Art Unit</b> 3762	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/1/05</u> .  | 6) <input type="checkbox"/> Other: _____                          |

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## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3 April 2009 has been entered.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. **Claim 7** is rejected under 35 U.S.C. 103(a) as being unpatentable over Yagi (US 2004/0102843) in view of Byers et al. (US 4,969,468).

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Yagi discloses an artificial vision system (e.g., Fig 1, 1) comprising: an external device to be disposed outside a body of a patient (e.g., Fig 1, 2); an image pickup device (e.g., Fig 1, 4); and an image processing device (e.g., Fig 1, 9) which generates a stimulation signal by processing an image captured by said image pickup device; an internal, implanted device (e.g., Fig 1, 3) including: a receiving device which receives a stimulation pulse signal and converts it into an electrical stimulation pulse signal (see Figure 1, 'reception'); and a plurality of electrodes (e.g., Fig 1, 11) which outputs the electrical stimulation pulse signal that is generated based on the image captured by the image pick up device thereby enabling the patient to visually recognize the image captured by said image pick up device (e.g., [0028]-[0030], [0053]-[0054] & [0059]).

Yagi discloses the claimed invention having an artificial vision system including a plurality of electrodes except wherein said system includes electrodes with a needle-shaped end that are adapted to be implanted in the eye so as to stick in a bundle of nerve fibers of an optic papilla of the eye and a plurality of signal wires which individually connect each said electrode and the receiving device. Byers et al. teaches that it is known to use electrode arrays for electrically stimulating nerve fibers in which said arrays comprises needle-like contacts that are disposed along the optic nerve or the paths where the optic nerve enters the cortex, in which Byers et al. is also capable of meeting the functional use recitations presented in the claim of being "...implanted in the eyes so as to stick in a bundle of nerves fibers of an optic papilla..." since the disclosed needle electrodes can be placed and will stick in claimed locations [e.g., (col 7, ln 33-53) & (col 15, ln 4-13)]. Note that the optic papilla is the portion of the optic nerve formed by retinal ganglion cells axons as they enter said optic nerve, in which the optic papilla is

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the location of the eye along the pathways of the optic nerve. Byers et al. also teaches that it is known to use conductors incorporated onto the base of the electrode arrays in which extend from the needle-like electrodes to terminals on said array so as to carry electrical signals to and/or from said electrodes and electrically couple said electrodes to other electrical circuits [e.g., (col 3, ln 43-53) & (col 6, ln 2-5)]. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system as taught by Yagi with the needle electrode array adapted to be disposed on the optic nerve comprising conductors extending from said needle electrodes to other electrical circuitry as taught by Byers et al., since such a modification would provide the artificial vision system including a plurality of electrodes with a needle-shaped end that are adapted to be implanted in the eye so as to stick in a bundle of nerve fibers of an optic papilla of the eye and a plurality of signal wires which individually connect each said electrode and the receiving device for providing the predictable results pertaining to providing a needle-shaped electrode used to penetrate into the optic nerve of a patient for effectively making electrical contact within the nerve fibers of said optic nerve so as to enhance optical functions of a patient (e.g., col 15, ln 4-13).

### ***Response to Arguments***

5. Applicant's arguments filed 3 April 2009 have been fully considered but they are not persuasive. The Applicant argues that Yagi in view of Byers et al., either alone or in combination, fails to teach or would have not rendered obvious a "...plurality of electrodes...adapted to be implanted in the eye so as to stick in a bundle of nerve fibers on an optic papilla of the eye..." The Examiner disagrees and further points out that the optic papilla is the portion of the optic nerve formed by retinal ganglion cells axons as they enter said optic

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nerve, in which the optic papilla is the location of the eye along the pathways of the optic nerve, therefore, as disclosed by Byers et al., the needle electrode array device adapted to make electrical contact with specific nerve fibers and is disposed along the optic nerve or the paths where the optic nerve enters the cortex provides the plurality of electrodes...adapted to be implanted in the eye so as to stick in a bundle of nerve fibers on an optic papilla of the eye as is instantly claimed [e.g., (col 7, ln 33-53) & (col 15, ln 4-13)]. Also, in response to applicant's argument that Byers et al., either alone or in combination, fails to teach or would have not rendered obvious a "...plurality of electrodes...adapted to be implanted in the eye so as to stick in a bundle of nerve fibers on an optic papilla of the eye...", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Therefore, Byers et al. is also capable of meeting the functional use recitations presented in the claim of being "...implanted in the eyes so as to stick in a bundle of nerves fibers of an optic papilla..." since the disclosed needle electrodes can be placed and will stick in claimed locations [e.g., (col 7, ln 33-53) & (col 15, ln 4-13)].

6. Applicant's arguments, filed 3 April 2009, with respect to the § 101 claim rejections have been fully considered and are persuasive and are withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICOLE F. LAVERT whose telephone number is (571)270-5040. The examiner can normally be reached on M-F 7:30-5:00p.m. (alt. fridays).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/George R Evanisko/  
Primary Examiner, Art Unit 3762

/Nicole F. LaVert/  
Examiner, Art Unit 3762